

ARC 212 ARCHAEOLOGY OF THE AEGEAN

Prof. Dr. Vasif Şahoğlu

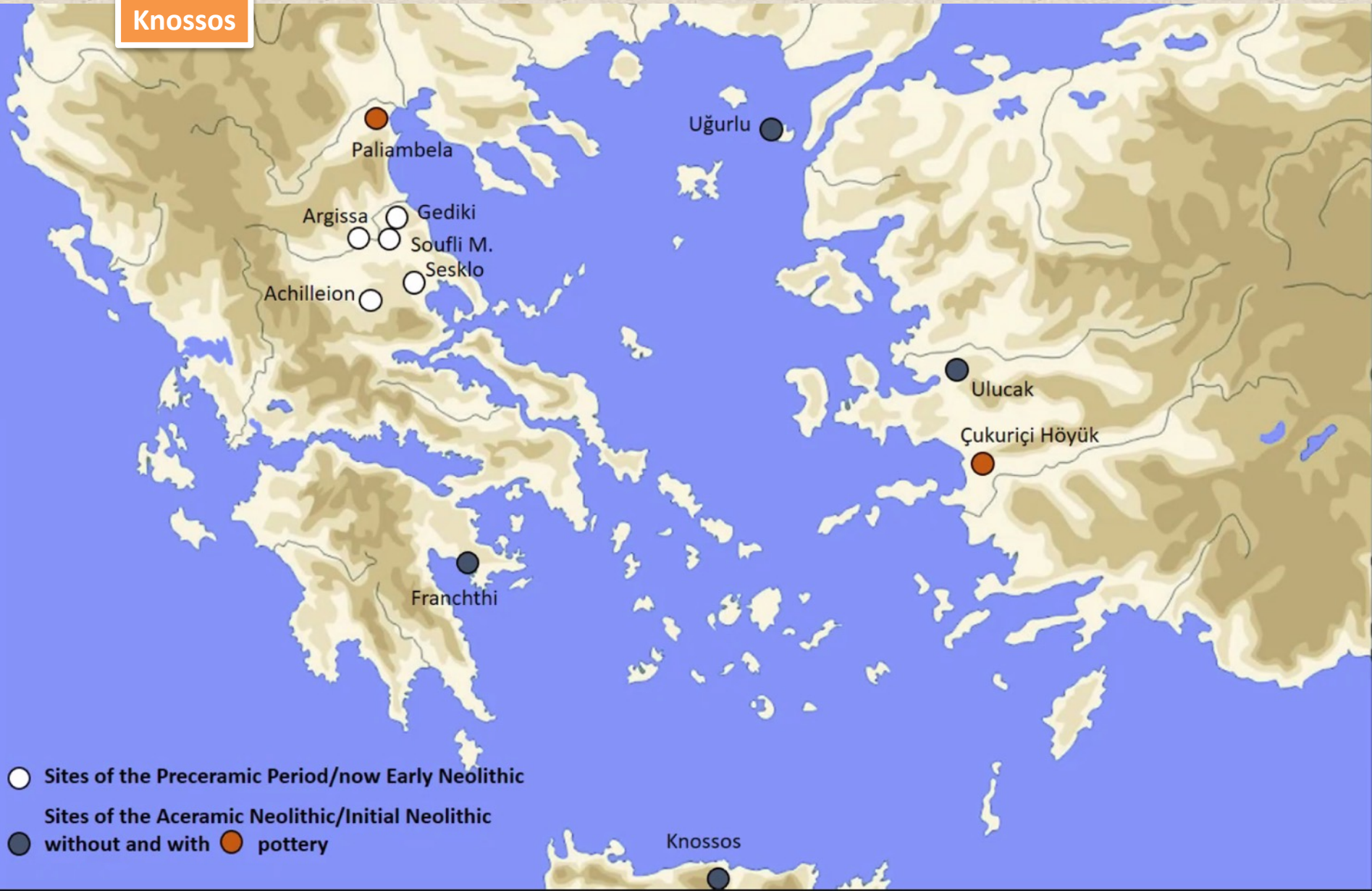
Course 03: Aegean Neolithic – Cyclades and Crete



Ankara University
Faculty of Languages and History - Geography
Department of Archaeology
Protohistory and Near Eastern Archaeology

Neolithic Crete

Knossos



- Sites of the Preceramic Period/now Early Neolithic
- Sites of the Aceramic Neolithic/Initial Neolithic without and with ● pottery

Neolithic Crete

Knossos



Cretan Pre Pottery Neolithic (before 6000 – 5700 BC) Knossos Level X

There is no pottery, but two baked clay figurines have been found. Walls are of unbaked mudbrick or of stones, mud, and mudbrick. No complete house plans have been recovered.

The economy is a fully developed Neolithic one including domesticated wheat, barley, lentils, sheep/goat, pig, and some cattle. Of the bones, ca. 75% are sheep/goat, 20% pig.

Stone axe-heads are rare. Chipped stone includes some Melian obsidian from the beginning of the sequence. Querns and grinders of stone are also present from the beginning.

Neolithic Crete

Knossos

Early Neolithic (c. 5700 - 3700 BC)

This period is divided into two different phases. The duration of these phases differ enormously from each other. EN I lasts 1700 years while EN II lasts 300 years.

Early Neolithic I (5700 – 4000 BC) (Knossos Levels IX-V)

The buildings in Levels IX-VIII are rectangular and constructed of fired mudbrick. From Level VII onwards, buildings are constructed of pise on stone foundations. Wall surfaces are regularly mud-plastered. Although no complete house plans were recovered, it is clear that buildings of this phase, as later in the Neolithic sequence at Knossos, consisted of large numbers of relatively small rooms.

Pottery, appears in a fully developed form and increases in quantity with time. It is generally dark-surfaced and burnished. Sometimes decorated with incised and dot-impressed motifs which are often filled with white paste. Complex handles and rims are claimed as evidence that the pottery was not in a formative stage of development and hence that the technology behind it was imported from outside the island. Stone axes are still rare, while stone maceheads first appear in Level VI.

Phase	Provisional Absolute Dates
Aceramic	>7000 ¹⁴ - c.6400 BC
ENIa [IX-VIII]	c.6400 - c.5800? BC
ENIb [VII-VI]	c.5800? - c.5100 BC
ENIc [V]	c.5100 - c.4900 BC
ENII [IV]	c.4900 - c.4500 BC
MN [III]	[c.4750 - c.4400 BC]
LNI [II]	c.4400 - c.4250 BC
LNII [I]	c.4250 - c.4000 BC
FN [Phaistos]	c.4000 - c.3300 BC

Crete Neolithic Chronology

Neolithic Crete

Knossos

Crete
Ceramic Boat Model



Early Neolithic II (4000 – 3700 BC)
(Knossos Level IV)



Knossos
Neolithic House

There are no apparent changes in the architecture. Again no complete house plans were recovered, but one partially cleared building, whose limits was not excavated, consisted of at least eight rectangular rooms. Towards the end of the period, new shapes in pottery increase in frequency. Near the end of the period the first evidence for a weaving industry appears in the form of spindle whorls, loomweights, and shuttles. Stone maceheads and axes increase in frequency. Rock crystal appears for the first time.

Middle Neolithic (3700-3600 BC)
(Knossos Level III)

This is a short transitional phase. For the first time, large portions of house plans were recovered. The buildings are large, basically rectangular units with many small rooms, in marked contrast to the small freestanding buildings of contemporary Thessaly which consist of two to four rooms each. There are small changes in the pottery. There is increased evidence for weaving, and the number of stone axes and maceheads continues to grow. A simple nine-room house at the site of Katsamba is contemporary with this period at Knossos.

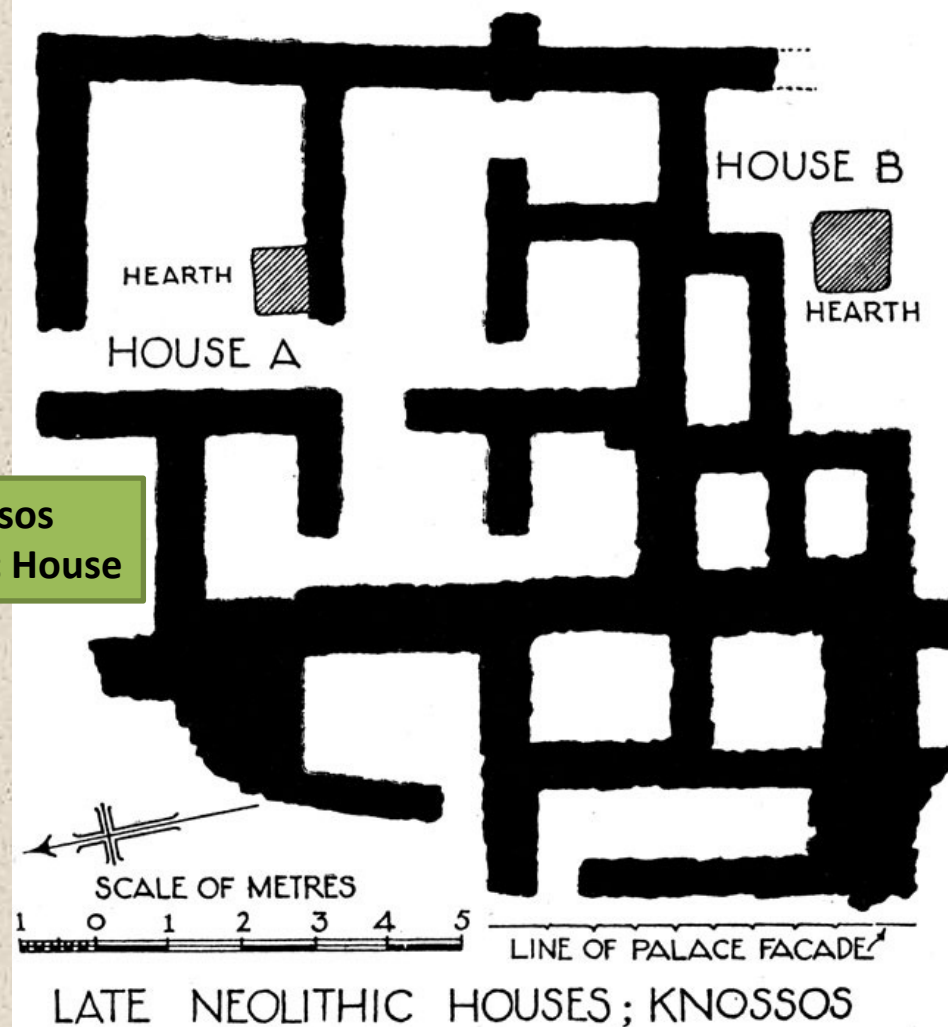
Neolithic Crete

Knossos



Late Neolithic (3600-2800 BC)
(Knossos Levels II and I)

Knossos Neolithic House



The two large buildings excavated by Sir Arthur Evans under the central court of the later Minoan palace belong to this phase. These buildings contained two fixed hearths, unparalleled in the other Neolithic phases at the site and unusual in later Minoan Crete. The better preserved (A) consists of at least fifteen rooms. An unusual two-roomed structure in which no less than nineteen stone axes and four millstones as well as fragments of obsidian were found, may have been a toolmaker's workshop. The first evidence for the use of metal artifacts consists of a copper axe found by Sir Arthur Evans in one of the buildings he excavated. There is now growing evidence for occupation at a number of other sites in Crete in the form of pottery from Phaistos, finds from numerous caves in west and central Crete (e.g. Platyvola, Trapeza), and a house at the site of Magasa.

Neolithic Crete

Knossos



Knossos
Neolithic Pottery



Knossos
Neolithic Pottery

The pottery is largely unchanged except for the appearance of "crusted" decoration at the very end of this phase, at more or less the same time as it appears in both Thessaly (Rachmani) and southern Greece (Final Neolithic).

Neolitik Girit

Knossos



Crete
Neolithic Figurine



Crete
Neolithic Figurine

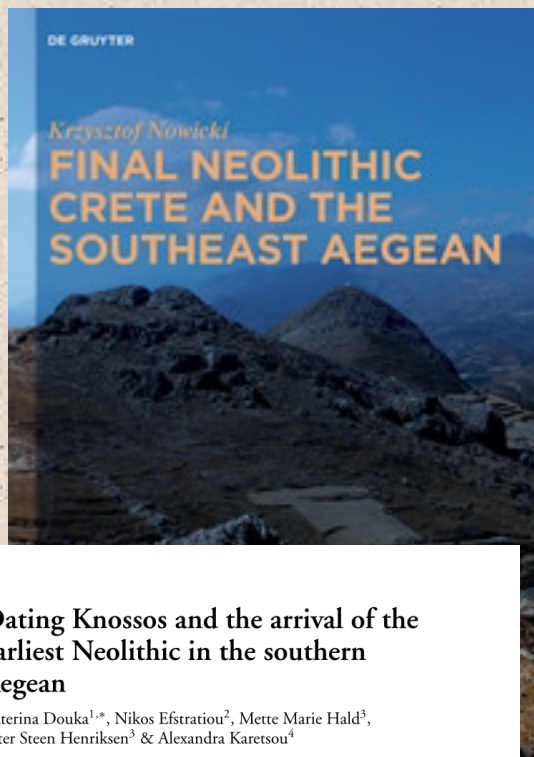
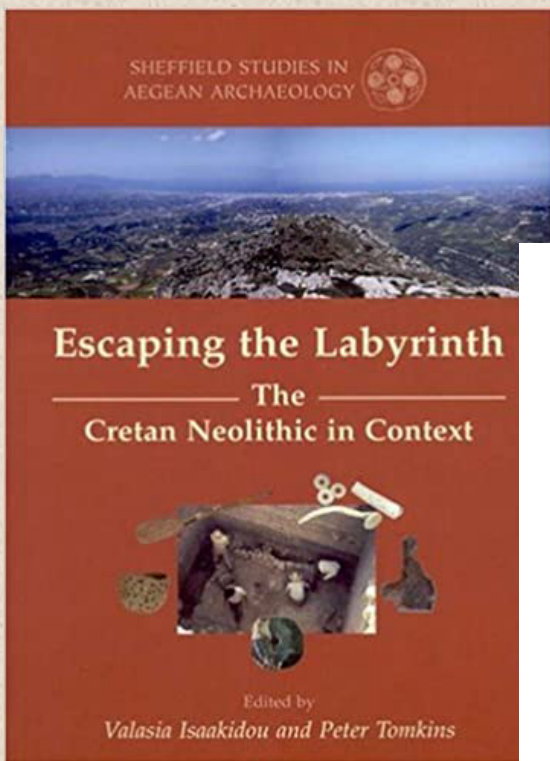
Cretan Neolithic Burial Customs

At Knossos, there is no evidence for adult burials, but infant and child burials are found in pits under house floors in the Aceramic, EN II, and MN levels.

During the Late Neolithic period, caves and rock shelters served as burial places in other parts of Crete.

Neolithic Crete

Selected Books / Articles



Dating Knossos and the arrival of the earliest Neolithic in the southern Aegean

Katerina Douka^{1*}, Nikos Efstratiou², Mette Marie Hald³, Peter Steen Henriksen³ & Alexandra Karetsou⁴



Knossos, on Crete, has long been famous both for its Minoan period remains and for the presence, at the base of the stratigraphy, of an early Neolithic settlement. The chronology and development of the Neolithic settlement, however, have hitherto been unclear. New light is now thrown on this formative period by combining new and older radiocarbon dates with contextual information in a Bayesian modelling framework. The results from Crete and western Anatolia suggest that an earlier, small-scale Aceramic colonisation preceded the later Neolithic reoccupation of Knossos.

Keywords: Aegean, Knossos, Neolithic, early farmers, sea-faring, radiocarbon dating

Introduction

Despite being one of the most celebrated archaeological sites in Europe, the origins of Knossos, on the island of Crete, Greece (Figure 1), remain enigmatic. The site was brought into the limelight at the turn of the twentieth century when Sir Arthur John Evans excavated and reconstructed the Bronze Age (Minoan) palatial complex on top of Kephala Hill. In the deepest soundings of his excavations, underneath the ubiquitous Bronze Age remains, he discovered a long, approximately 10m-deep series of Neolithic deposits. It was not until the late 1950s, however, that the Neolithic aspect of Knossos became better researched, with renewed excavations establishing the arrival of domesticates and early farming practices on

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Production and exchange of the earliest ceramic vessels in the Aegean: a view from Early Neolithic Knossos, Crete

PETER TOMKINS & PETER M. DAY*

Around 6500 BC the first ceramic vessels appeared in the Aegean (Anatolian coast, mainland Greece, Crete). On Crete, the rich stratigraphical sequence of the Neolithic tell-mound at Knossos attests to the introduction of pottery after a long aceramic phase (c. 500 years). In common with most assemblages of this period, pottery production has been understood to be almost entirely local to its findspot, leading to a minimalist view of ceramic exchange (cf. Vitelli 1993).

In the case of Knossos this ceramic isolation is compounded by the fact that an Early Neolithic (EN) date has been claimed for only six other sites, most of which are caves (see MAP). Consequently the EN Cretan landscape is considered to be empty of settlements, dominated by an isolated Knossos (e.g. Manning 1999: 470).

These hypotheses have been re-examined in doctoral research by Tomkins into the production, circulation and consumption of EN pottery from Knossos. This project has integrated macroscopic study of pottery form, fabric and frequency with a combination of thin-section petrography

and lithologies is present in later ceramic fabrics, commonly known as 'Mirabello' fabric, produced on the northern edge of the Isthmus of Ierapetra, East Crete. Indeed a close match for the EN fabric from Knossos has been found in pottery dated to the Final Neolithic found within this area of the Isthmus (Kavousi) (Haggis 1995) (FIGURE 6). Thus an origin for this fabric is confirmed around 70 km distant from Knossos.

This fabric forms only a small part of the emerging picture. Nevertheless, its discussion here illustrates the wealth of information revealed when a local provenance for Neolithic ceramics is not assumed and appropriate attention is given to ceramic variability. The full publication of analyses is in preparation, however a number of observations can be made:

1 Mineralogical and stylistic evidence suggests that the range of fabrics present at EN Knossos represents the production of ceramic vessels at a number of different settled locations within Crete, mostly in north-central Crete; however the EN 'Mirabello' fabric shows a source quite distant

The Neolithic Settlement of Knossos in Crete

New Evidence for the Early Occupation of Crete and the Aegean Islands



**Cycladic Neolithic
The Saliagos Culture
(c. 4300-3700 BC)**



The only extensively excavated site of this culture, Saliagos, lies on what is now a small islet between Paros and Antiparos. This site was a settlement with finds including architecture, pottery, stone artifacts, and both plant and animal remains. The architecture consists of buildings with rectangular rooms. Much of the excavated area was occupied by a single rectangular complex measuring 15 by more than 17 meters.

The pottery is dark-surfaced, usually unburnished when coarse and burnished when fine. Characteristic are open bowls, of which ca. 40% stand on high pedestal feet. Equally characteristic is the decoration of this dark-surfaced pottery with geometric ornament, both rectilinear and curvilinear, in white matt paint.

The chipped stone are exclusively of obsidian.

**Cycladic Neolithic
The Saliagos Culture
(c. 4300-3700 BC)**

Saliagos



Saliagos Neolithic Architecture



Saliagos, Neolithic Pottery

**Cycladic Neolithic
The Saliagos Culture
(c. 4300-3700 BC)**

Saliagos Culture



Saliagos, Neolithic Pottery



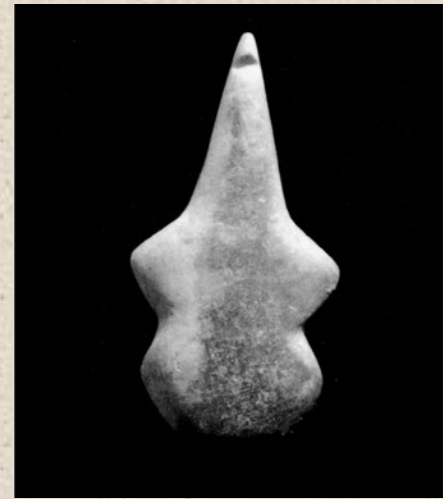
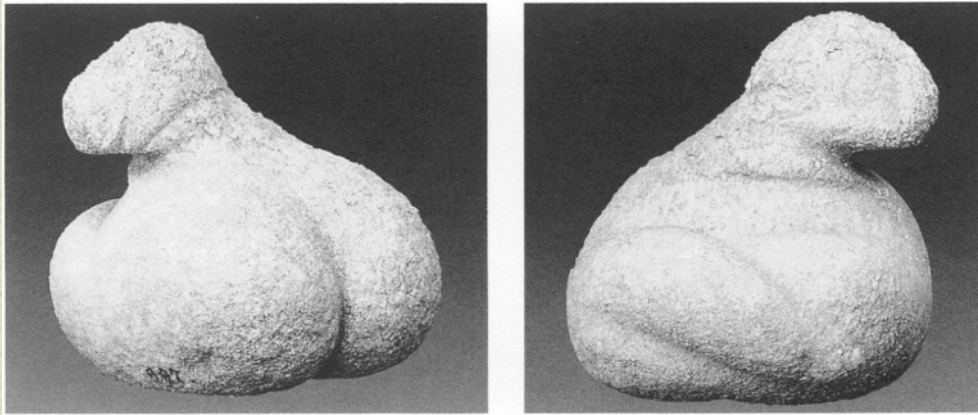
Saliagos, Neolithic Pottery



Saliagos, Melian Obsidian

**Cycladic Neolithic
The Saliagos Culture
(c. 4300-3700 BC)**

Saliagos Culture



Marble figurines are of both schematic and realistic forms. "The Fat Lady of Saliagos", an excessively big-buttred female stylistically typical of the Neolithic period was found. But figurines are very rare. (Only one of each).

Fragments of two marble vases were recovered. Plant remains consist of emmer wheat and two-row barley. Of the animal bones, sheep/goat accounted for 83.5%, pig for 12.1%, and cattle for 3.5%. Large numbers of fish bones were found, of which 97% of the identifiable pieces belonged to Tuna, often of very large size. Interestingly, however, no fish-hooks were identified among the artifacts of bone or stone



'Fat Lady of Saliagos'

**Cycladic Neolithic
The Saliagos Culture
(c. 4300-3700 BC)**

Saliagos Culture



Saliagos, Neolithic Pottery

Although a fairly large number of sites characterized by the stone tool assemblage found at Saliagos have now been identified in the Cyclades, the vast majority of these sites are small and many of them were probably nothing more than lookout posts or even spots where a single individual spent a short period of time obsidian-knapping. The only site to have produced evidence of farming activity is Saliagos itself.

No traces of a cemetery or of tombs of any sort were found at Saliagos nor was any metal. The Saliagos culture is roughly contemporary with late MN and early LN on the Greek Mainland. In terms of both its pottery and its reliance on marine resources, it differs considerably from known Mainland Greek or Cretan Neolithic cultures. Similar pottery has been found at sites on nearby Naxos (Grotta, Cave of Zas); the closest mainland ceramic analogues come from Anatolia to the east rather than the Greek Mainland to the west, thus suggesting that the Cyclades may have been initially colonized during the Neolithic period by human groups especially from the Eastern Aegean.

Excavations
at

Saliagos

near
Antiparos

J. D. Evans

Colin Renfrew

EXCAVATIONS AT SALIAGOS

NEAR ANTIPAROS

BY

J. D. EVANS

AND

COLIN RENFREW

THE BRITISH SCHOOL OF ARCHAEOLOGY AT ATHENS

THAMES AND HUDSON

1968

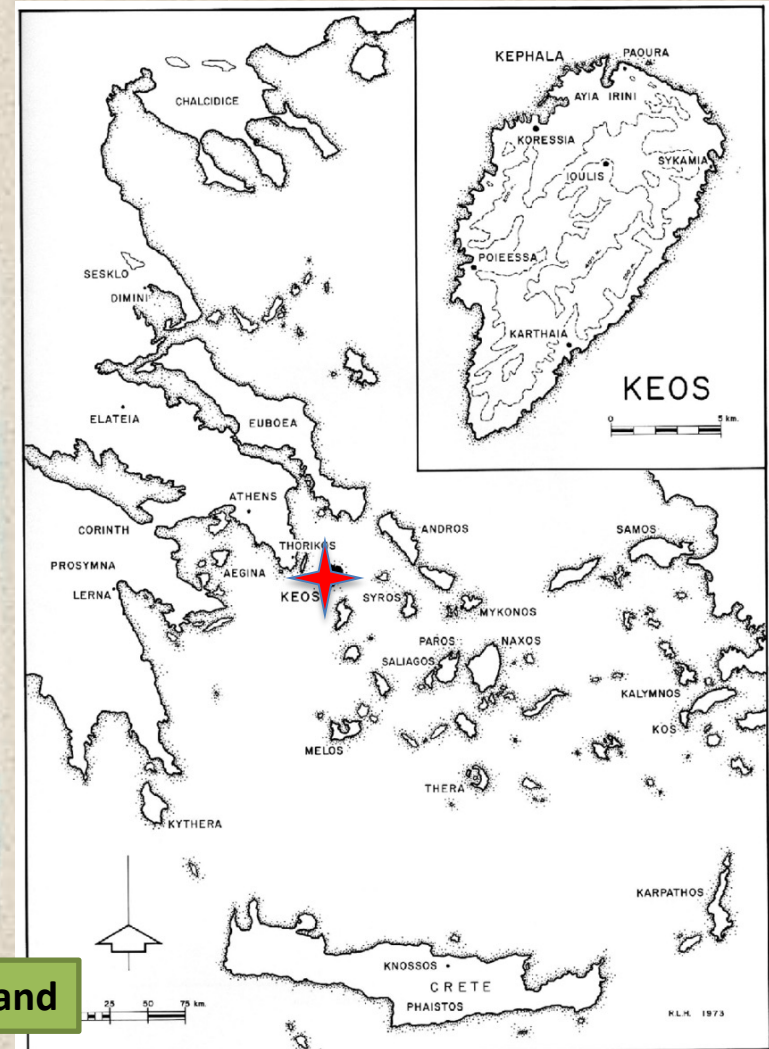


**Cycladic Neolithic
The Kephala Culture
(c. 3300-3200 BC)**

Keos - Kephala



Kephala Settlement



Keos Island

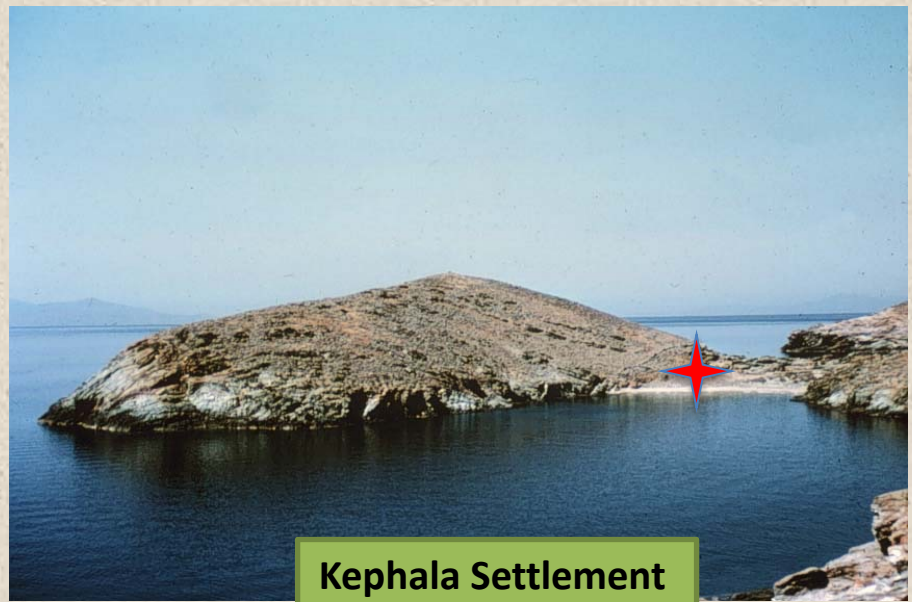
Located at the northwestern tip of the island of Keos, Kephala consists of both a settlement and a nearby extramural cemetery. The settlement was short-lived (estimated occupational duration of one century) and small (maximum population estimate of 50) and is one of several more or less contemporary sites on the island.

**Cycladic Neolithic
The Kephala Culture
(c. 3300-3200 BC)**

Keos - Kephala



**Kephala Settlement
from Northeast**



**Kephala Settlement
from Northwest**

The settlement architecture at Kephala consists of small, poorly preserved buildings composed of one or more rectangular rooms.

**Cycladic Neolithic
The Kephala Culture
(c. 3300-3200 BC)**

Keos - Kephala



Kephala Settlement



Building Y



Northeast corner of Building Y

**Cycladic Neolithic
The Kephala Culture
(c. 3300-3200 BC)**

Keos - Kephala

Kephala Settlement



Building Z



Building Z

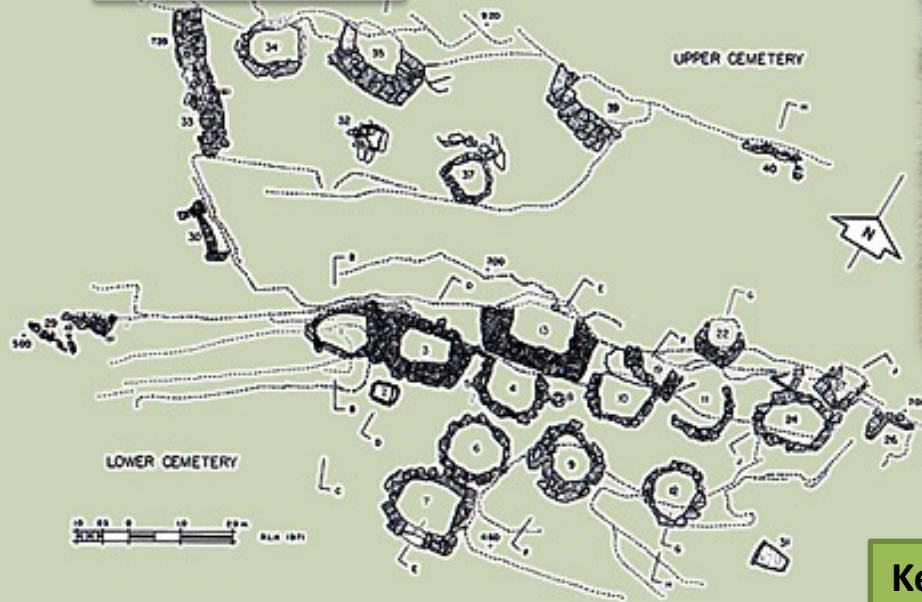


Building Z

**Cycladic Neolithic
The Kephala Culture
(c. 3300-3200 BC)**

Keos - Kephala

Burial Customs



Kephala Cemetery

On the south side and near the base of the headland on which the settlement is located is a cemetery consisting of forty excavated graves containing the remains of sixty-five individuals (21 adult males, 25 adult females, 5 adults of unknown sex, 9 children, 5 infants). Thirty-five of the forty graves have walls constructed of small stones. In plan, these graves can be rectangular, circular, or oval, and they vary considerably in size.

**Cycladic Neolithic
The Kephala Culture
(c. 3300-3200 BC)**

Keos - Kephala

Burial Customs



Kephala Cemetery



**Kephala Cemetery
Lower Cemetery Area – Central Group**

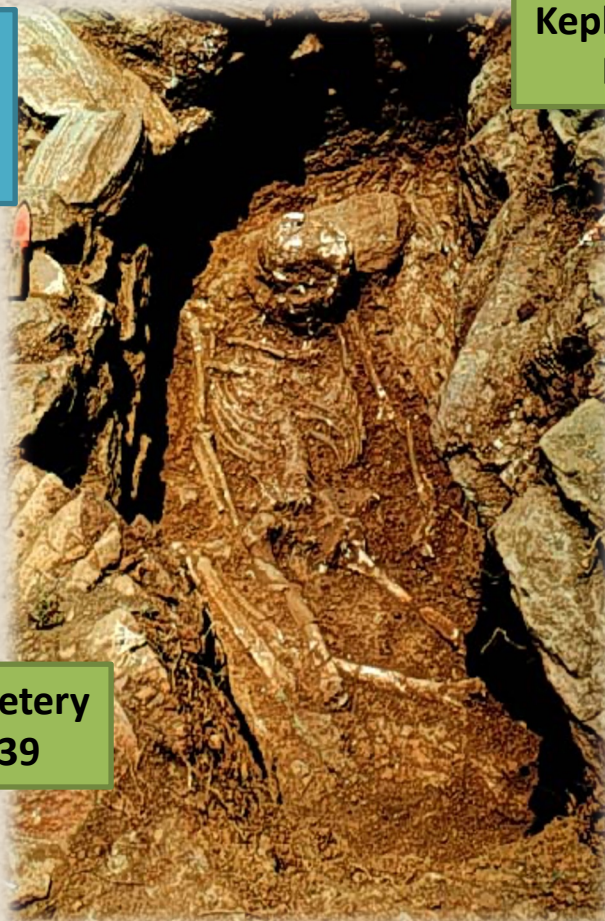
At least seven of these built graves were surmounted by built stone platforms, usually rectangular in plan, whose function is unclear. Of the five graves which were not constructed of small stones, two were small slab-sided cists (one containing a jar burial) and three were jar burials in simple pits. All five of these smaller and simpler tombs were used for the burial of children or infants.

**Cycladic Neolithic
The Kephala Culture
(c. 3300-3200 BC)**

Keos - Kephala

Burial Customs

**Kephala Cemetery
Grave no. 39**



**Kephala Cemetery
Rave No. 3**



**Kephala Cemetery
Grave No. 14**

Il burials were inhumations, the skeletons usually being contracted. Among the twenty-five tombs for which precise details are available, fifteen contained a single burial (nine adults, three children, three infants), five contained two burials, and five contained between four and thirteen burials. The tombs with multiple burials are likely to have been family tombs, some of which were clearly used over a considerable period of time.

Of the twenty-seven for which there is definite information, only nine contained any grave offerings at all and only one contained more than one object. Grave goods were normally containers, marble vessels in two cases but more often clay pots.

**Cycladic Neolithic
The Kephala Culture
(c. 3300-3200 BC)**

Kephala Culture

Burial Customs



**Kephala Cemetery
Grave No. 38**



**Kephala Cemetery
Grave No. 35**

**Cycladic Neolithic
The Kephala Culture
(c. 3300-3200 BC)**

Keos - Kephala

Burial Customs



**Kephala Cemetery
Burial No. 2**



**Kephala Cemetery
Burial No. 12**

In only one case was a grave offering something other than a vessel: a flint scraper deposited with an adult male

**Cycladic Neolithic
The Kephala Culture
(c. 3300-3200 BC)**

Keos - Kephala

Pottery



Grave No. 31



Grave No. 32



Among the pottery, the most common shapes are bowls, jars, and scoops. Decoration, when it occurs, may consist of incision, pattern-burnishing, or crusted decoration in red or white applied after firing. Of considerable interest are the impressions of woven mats on seventeen potsherds and of cloth on three more sherds.

**Cycladic Neolithic
The Kephala Culture
(c. 3300-3200 BC)**

Keos - Kephala

Pottery



Crusted Ware



Crusted Ware

**Cycladic Neolithic
The Kephala Culture
(c. 3300-3200 BC)**

Keos - Kephala

Pottery



Pattern Burnished Pottery

Pattern Burnished Pottery



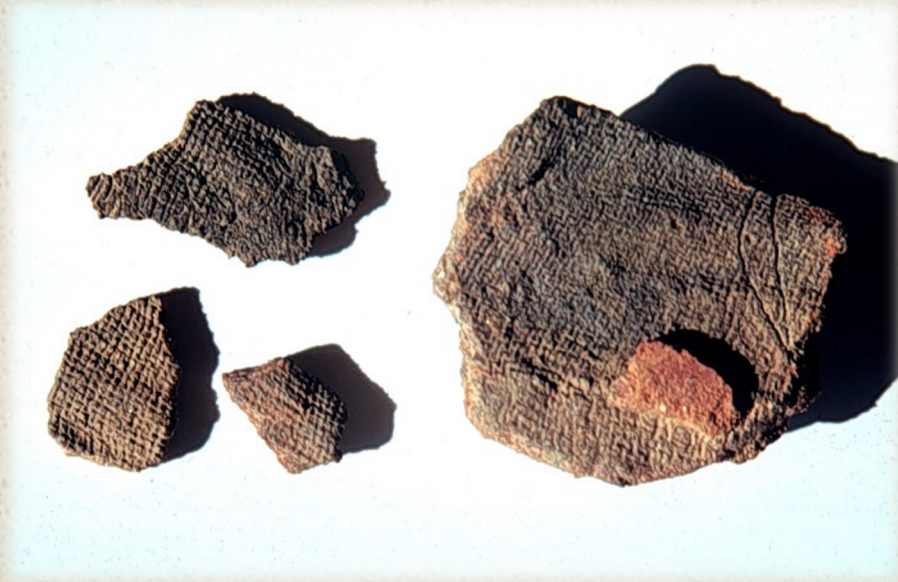
Scoop



**Cycladic Neolithic
The Kephala Culture
(c. 3300-3200 BC)**

Keos - Kephala

Pottery



Textile impressions on pottery

**Cycladic Neolithic
The Kephala Culture
(c. 3300-3200 BC)**

Keos - Kephala

Metallurgy



Copper and Slag samples



From the settlement comes evidence of metalworking on the site in the form of pieces of slag and of burnt clay fragments of furnace-lining or of crucibles. Four fragmentary copper artifacts from the site (the single piece analyzed was almost pure copper) were unfortunately surface finds, but there is little reason not to accept them as representative of the sort of metal artifact in use during the site's occupation.

**Cycladic Neolithic
The Kephala Culture
(c. 3300-3200 BC)**

Keos - Kephala

Chipped Stone Industry



Most of the chipped stone on the site is obsidian which was clearly locally worked and of which a far larger percentage consists of blades than at Saliagos. Half-a-dozen tools of flint/ chert are certainly imported.

**Cycladic Neolithic
The Kephala Culture
(c. 3300-3200 BC)**

Keos - Kephala

Marble Vases



**Cycladic Neolithic
The Kephala Culture
(c. 3300-3200 BC)**

Keos - Kephala

Figurines



Eight terracotta figurines, all but one found in the cemetery although not in the tombs themselves, are either small, crudely modelled female figures (four examples), heads which resemble in their flat, backward-tilting faces and prominent noses the later marble Early Cycladic figurines (three examples)

**Cycladic Neolithic
The Kephala Culture
(c. 3300-3200 BC)**

Keos - Kephala



The Kephala culture, assignable to the Final Neolithic period, has numerous connections with sites in Attica (Athens, Thorikos, Kitsos Cave) and the Saronic Gulf (Kolonna on Aegina). The extramural cemetery at Kephala is, after the earlier cemeteries of corbelling burials from Souphli and Plateia Magoula Zarkou in Thessaly, the Aegean's first communal burial ground to be located outside of a cave.

The tomb types, marble vessels, and some of the figurines anticipate those characteristic of the subsequent Grotta-Pelos culture, the earliest Bronze Age culture thus far identified in the islands.

The evidence from Kephala for Neolithic metalwork corresponds in date with that from contemporary Knossos on Crete, Pefkakia in Thessaly, and Sitagroi in eastern Macedonia, but only at Kephala and Sitagroi do slags or crucibles attest to the actual practice of some kind of metallurgy. Roughly contemporary deposits of copper artifacts accompanied by gold and silver objects with parallels among the treasures found in the rich Neolithic burials at Varna in coastal Bulgaria have also been found in the Cave of Zas on Naxos and in the Alepotrypa Cave in southern Laconia. Such distant contacts are testimony to the impressive distances over which objects were being exchanged by sea in the Aegean during the later fourth millennium B.C.

KEOS I

KEPHALA

JOHN E. COLEMAN

